US LHC Accelerator Project Baseline Change Request

BCR Number 35

WBS 1.5.1 US LHC Project Management

Title DFBX Fabrication Study

Change Control Level 2

Originator J. Strait

Date 19 September 2001

Description of change

This BCR is to authorize budget within the US LHC Accelerator Project Management Office (PMO) to conduct a fabrication study for the IR Feedboxes (DFBX). The study will be performed by two commercial vendors with extensive experience in the design and fabrication of complex cryogenic equipment, under the direction of the PMO, and with the support of Fermilab and LBNL engineering. Specific activities covered by this BCR are:

- 1) Participation of Fermilab cryogenic engineers in the preparation of the specification for the fabrication study, discussions with and visits to the vendors during the course of the study, and review of the reports from the vendors.
- 2) Support from the Fermilab Design and Drafting Department in printing the drawing packages from electronic files provided by LBNL.
- 3) The cost of the contracts for the fabrication study with two experienced cryogenic equipment manufacturers.

Reason for change

This study is being carried out as part of a PMO's review of the DFBX design, fabrication plan, and cost estimate to complete.

Impact on other sub-systems

Some additional effort will be required from LBNL engineers and designers working on WBS 1.3.1 IR Feedboxes, to provide technical information, including electronic drawing files, to support this study. Effort will be made to minimize this impact, principally to not distract LBNL from their task of completing the DFBX design.

Impact on cost

The estimated cost in FY2001 dollars is shown in Table 1. This work is expected to be completed within the next 2 months, and escalation is not applied. A new WBS element 1.5.1.4, with associated charge code, will be created. Travel expenses to support this work will be covered under the existing PMO travel budget (WBS 1.5.1.2).

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Table 1. Estimated Cost of DFBX Fabrication Study.

				Unit		MATERIAL		LABOR					Totals (FY01\$)				
WBS			s		Item description	of	No. of	FY01 \$	Total	Labor	hrs/	\$ per	\$ per	Total	G&A	Direct	with
				Measure		units	per unit	M&S \$	type	unit	hour	unit	labor \$		Cost	G&A	
1	5	1	4	1	DFBX Fabrication Study				\$ 20,000					\$ 7,558	\$ 5,543	\$ 27,558	\$ 33,102
1	5	1	4	1	Engineering Support	FTE-wk	3		\$ -	FET	35.0	\$ 58.27	\$ 2,039	\$ 6,118	\$ 1,881	\$ 6,118	\$ 7,999
1	5	1	4	2	Drafter Support	FTE-wk	1		\$ -	FDR	35.0	\$ 41.14	\$ 1,440	\$ 1,440	\$ 443	\$ 1,440	\$ 1,883
1	5	1	4	3	Fabrication Study Contract	ea	2	\$ 10,000	\$ 20,000					\$ -	\$ 3,220	\$ 20,000	\$ 23,220

Impact on schedule

None.

Other impacts (ES&H, etc.)

None.

Change Control Board recommendation (if required)

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Originator	J. Strait	
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Approvals

11/4	20 Sep 01
WBS Level 3 Manager	Date
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Laboratory Project Manager	Date
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Change Control Board Chair	Date
	20 day 01
US LHC Accelerator Project Manager	Date
Repid- Carola pr James Yeck	9/20/01
DOE LHC Project Manager	Date
Director DOE Division of High Energy Physics	Date